

[PROCESS FOR CREATING PHASE EDGE STRUCTURES]

Abstract

Disclosed is a method for forming an optical mask that has reduced processing steps. The invention performs a first patterning of an opaque chrome layer to expose a first region of the transparent quartz substrate and then etches the first region of the transparent quartz substrate through the chrome layer to create a phase shift region within the transparent quartz substrate. Next, the invention performs additional patterning of the opaque chrome layer to expose a second region of the transparent quartz substrate that is adjacent the first region. This additional patterning process enlarges the opening formed in the opaque mask formed in the first patterning process. The first region and the second region comprise a continuous area of the transparent quartz substrate.